Applicant's Name _____

SYSTEMS AND EQUIPMENT (ELECTRICAL EQUIPMENT)
Reference FAA Order 8110.37, Appendix 2, Chart C2

DER APPLICATION EVALUATION TECHNICAL CRITERIA
Delegated Functions & Authorized Areas

- Applicant indicates requested area(s) of delegation and attaches supporting data to establish technical expertise and experience.
- Advisor (**Adv**) evaluates requested area(s), recommends area(s) to Evaluation Panel (**EP**). (Y=YES; N=NO) and provides rationale.
- Evaluation Panel evaluates area(s) recommended by Advisor, marks **EP** column. (Y=YES; N=NO) and provides rationale.

DER APPLICANT USE ONLY		FAA USE ONLY	
Requested Areas	DETAIL DESIGN & INSTALLATION	Adv	EP
	1A Electrical Equipment/Systems		
	1B Electronic Equipment/Systems		
	1C Communications Systems/Antennas		
	1D Auto. Flight Controls/Augmentation		
	1E Instruments		
	1F Navigation Systems/Antennas		
	1G Air Data/Pitot Static		
	1H Warning Systems		
	1I Interior/Exterior Lighting		
	1J Flight Data/Voice Recording		
	1K Passenger Address/Entertainment		
	1L Special (Specify)		
Requested Areas	EQUIPMENT QUALIFICATION TESTS	Adv	EP
	2A Electrical Equipment/Systems		
	2B Electronic Equipment/Systems		
	2C Communications Systems/Antennas		
	2D Auto. Flight Controls/Augmentation		
	2E Instruments		
	2F Navigation Systems/Antennas		
	2G Air Data/Pitot Static		
	2H Warning Systems		
	2I Interior/Exterior Lighting		
	2J Flight Data/Voice Recording		
	2K Passenger Address/Entertainment		
	2L Special (Specify)		

SYSTEMS AND EQUIPMENT (ELECTRICAL EQUIPMENT)

Reference FAA Order 8110.37, Appendix 2, Chart C2

Requested Areas	SOFTWARE	Adv	EP
	3A Electrical Equipment/Systems		
	3B Electronic Equipment/Systems		
	3C Communications Systems/Antennas		
	3D Auto. Flight Controls/Augmentation		
	3E Instruments		
	3F Navigation Systems/Antennas		
	3G Air Data/Pitot Static		
	3H Warning Systems		
	3J Flight Data/Voice Recording		
	3K Passenger Address/Entertainment		
	3L Special (Specify)		

Additional requirements for a Delegated Function of Software Approval:

Circle One

Yes   No   (a) Comprehensive familiarity with, and understanding of, RTCA Document DO-178 (applicable revision), Software Considerations in Airborne Systems and Equipment Certification.

Yes   No   (b) Familiarity with the systems safety assessment process, specifically, those portions which establish the software criticality levels.

Yes   No   (c) A demonstrated knowledge of the rationale for, and the significance of, each stage in the software development process, as well as its supporting standards, procedures, and documentation. The DER should be able to identify the critical aspects and contents of each of the documents mentioned in DO-178.

Yes   No   (d) Experience gained from participation in some technically responsible capacity over a complete software development program life cycle. This qualification may be satisfied by an aggregate over several different software development programs.

Yes   No   (e) Experience interacting with all phases of software development and testing processes addressed by DO-178, including utilization of the associated configuration and quality control procedures. This experience should include significant responsible involvement in several of those phases. When assessing an applicant's capabilities for making a knowledgeable finding of compliance, experience obtained in the requirements development or testing phases may, for example, be weighted more heavily than that obtained in the detail design or coding phases.

Yes   No   (f) Fluency in at least one high-level and one assembly-level programming language and familiarity with typical support software used in a software development process. Familiarity with typical software tools available to facilitate the development, documentation, and consistency-checking processes is highly desirable.

Yes   No   (g) Demonstrated knowledge of the sources of software anomalies, the relative merits of the types of testing procedures which are available to protect against them, and the characteristics of a thorough test program.

Yes   No   (h) Familiarity with the aspects of computing peculiar to real-time avionics systems, such as the use of interrupts, multi-tasking, software reentrancy, etc. This should include an appreciation of the types of analysis and testing necessary to ensure the integrity of these mechanisms.

Yes   No   (i) An understanding of the techniques which may be employed to reduce software criticality levels, such as system architecture, multi-version programming, and partitioning. This should include the ability to assess the adequacy of a proposed technique relative to the integrity credit desired.

Yes   No   (j) Knowledge of hardware characteristics such as input/output schemes, memory organization and multi-port access communication-bus protocols, and processor architecture, all of which have an impact on the software interface and the potential for the creation of anomalies.

Applicant's Name: _____

SYSTEMS AND EQUIPMENT (ELECTRICAL EQUIPMENT)
Reference FAA Order 8110.37, Appendix 2, Chart C2

DER APPLICANT USE ONLY		*FAA USE ONLY*	
Requested Areas	**SERVICE DOCUMENTS**	**Adv**	**EP**
	4A Electrical Equipment/Systems		
	4B Electronic Equipment/Systems		
	4C Communications Systems/Antennas		
	4D Auto. Flight Controls/Augmentation		
	4E Instruments		
	4F Navigation Systems/Antennas		
	4G Air Data/Pitot Static		
	4H Warning Systems		
	4I Interior/Exterior Lighting		
	4J Flight Data/Voice Recording		
	4K Passenger Address/Entertainment		
	4L Special (Specify)		
Requested Areas	**ELECTRICAL LOAD ANALYSIS**	**Adv**	**EP**
	5A Electrical Equipment/Systems		
	5B Electronic Equipment/Systems		
	5C Communications Systems/Antennas		
	5D Auto. Flight Controls/Augmentation		
	5E Instruments		
	5F Navigation Systems/Antennas		
	5G Air Data/Pitot Static		
	5H Warning Systems		
	5I Interior/Exterior Lighting		
	5J Flight Data/Voice Recording		
	5K Passenger Address/Entertainment		
	5L Special (Specify)		
Requested Areas	**SAFETY ANALYSIS**	**Adv**	**EP**
	6A Electrical Equipment/Systems		
	6B Electronic Equipment/Systems		
	6C Communications Systems/Antennas		
	6D Auto. Flight Controls/Augmentation		
	6E Instruments		
	6F Navigation Systems/Antennas		
	6G Air Data/Pitot Static		
	6H Warning Systems		
	6I Interior/Exterior Lighting		
	6J Flight Data/Voice Recording		
	6K Passenger Address/Entertainment		
	6L Special (Specify)		
Requested Areas	**LIGHTNING/HIRF PROTECTION**	**Adv**	**EP**
	7A Electrical Equipment/Systems		
	7B Electronic Equipment/Systems		
	7C Communications Systems/Antennas		
	7D Auto. Flight Controls/Augmentation		
	7E Instruments		
	7F Navigation Systems/Antennas		
	7G Air Data/Pitot Static		
	7H Warning Systems		
	7L Special (Specify)		